

What is claimed is:

1. A cartridge for treating water, said cartridge capable of releasably engaging with a water treatment device, said cartridge comprising:
  - (a) a housing, an inlet for introducing untreated water into said cartridge, an outlet port for egress of treated water from said cartridge, and a treatment media for treating untreated water, said treatment media being in fluid communication with said inlet and said outlet port;
  - (b) a first tube comprising an inside surface, an outside surface, a proximal end, and a distal end, wherein at least one of said inside surface and outside surface is a sealing surface; and
  - (c) a second tube comprising an inside surface, an outside surface, a proximal end, and a distal end, wherein at least one of said inside surface and said outside surface is a sealing surface;

wherein said first tube extends from said housing and surrounds said outlet port, and wherein at least a portion of said first tube or said second tube surrounds the other such that a gap is formed between said first tube and said second tube, said gap capable of holding a volume of water, and such that at least one of said sealing surfaces of said second tube extends a greater distance than at least one of said sealing surfaces of said first tube from said housing.
2. The cartridge of claim 1, wherein said sealing surface of said second tube extends from said cartridge housing from about 1 time to about 3 times the distance of said sealing surface of said first tube.

3. The cartridge of claim 1, wherein at least a portion of said inside surface of said first tube and a portion of said inside surface of said second tube are sealing surfaces.
4. The cartridge of claim 1, wherein said distal end of said second tube extends from said cartridge housing a greater distance than said distal end of said first tube.
5. The cartridge of claim 4, wherein said distal end of said second tube extends from said cartridge housing from about 1 time to about 2.5 times the distance of said distal end of said first tube.
6. The cartridge of claim 1, wherein said first and second tubes are without o-rings.
7. The cartridge of claim 1, wherein the diameter of said inside surface of said first tube is from about 0.5 cm to about 3 cm.
8. The cartridge of claim 7, wherein the diameter of said inside surface of said second tube is from about 1 cm to about 5 cm, such that the diameter of said gap formed between said outside surface of said first tube and said inside surface of said second tube is from about 0.1 cm to about 2.5 cm.
9. The cartridge of claim 1, wherein said gap is capable of holding from about 0.1 ml to about 6 ml of water when said cartridge is not sealingly engaged to the water treatment device.
10. The cartridge of claim 1, wherein said second tube extends from said first tube, and said first tube extends from said cartridge housing.
11. The cartridge of claim 1, wherein a portion of said outside surface of said second tube is a cam surface.

12. A cartridge for treating water, said cartridge capable of releasably engaging with a water treatment device, said cartridge comprising:

(a) a housing, an inlet for introducing untreated water into said cartridge, an outlet port for egress of treated water from said cartridge, and a treatment media for treating untreated water, said treatment media being in fluid communication with said inlet and said outlet port;

(b) a first tube comprising an inside surface, an outside surface, a proximal end, and a distal end, wherein at least one of said inside surface and said outside surface is a sealing surface; and

(c) a second tube comprising an inside surface, an outside surface, a proximal end, and a distal end, wherein at least one of said inside surface and outside surface is a sealing surface;

wherein said first tube extends outwardly from said housing and surrounds said outlet port, and said second tube surrounds at least a portion of said first tube, such that a gap is formed between said first tube and said second tube, said gap capable of holding a volume of water, and such that said distal end of said first tube extends a greater distance than said distal end of said second tube from said housing.

13. The cartridge of claim 12, wherein said distal end of said first tube extends from said cartridge housing from about 1 time to about 2.5 times the distance of said distal end of said second tube.

14. The cartridge of claim 12, wherein at least a portion of said inside surface of said first tube and a portion of said inside surface of said second tube are sealing surfaces.
15. The cartridge of claim 12, wherein the most distal said sealing surface of said first tube extends from said cartridge housing a greater distance than the most distal said sealing surface of said second tube.
16. The cartridge of claim 15, wherein the most distal said sealing surface of said first tube extends from said cartridge housing at least from about 1 time to about 3 times the distance of the most distal said sealing surface of said second tube.
17. The cartridge of claim 12, wherein said first and second tubes are without o-rings.
18. The cartridge of claim 12, wherein the diameter of said inside surface of said first tube is from about 0.5 cm to about 3 cm.
19. The cartridge of claim 18, wherein the diameter of said inside surface of said second tube is from about 1 cm to about 5 cm, such that the diameter of said gap formed between said outside surface of said first tube and said inside surface of said second tube is from about 0.1 cm to about 2.5 cm.
20. The cartridge of claim 12, wherein said gap is capable of holding from about 0.1 ml to about 6 ml of water when said cartridge is not sealingly engaged to the water treatment device.
21. The cartridge of claim 12, wherein a portion of said outside surface of said second tube is a cam surface.
22. The cartridge of claim 12, where said media comprises a radial flow carbon block.

23. A cartridge for treating water, said cartridge capable of releasably engaging with a water treatment device, said cartridge comprising:

(a) a housing, an inlet for introducing untreated water into said cartridge, an outlet port for egress of treated water from said cartridge, and a treatment media for treating untreated water, said treatment media being in fluid communication with said inlet and said outlet port;

(b) a first tube comprising an inside surface, an outside surface, a proximal end, and a distal end, wherein a portion of said inside surface is a sealing surface; and

(c) a second tube comprising an inside surface, an outside surface, a proximal end, and a distal end, wherein a portion of said inside surface is a sealing surface;

wherein said first tube extends outwardly from said housing and surrounds said outlet port, and said second tube extends outwardly from said housing and surrounds said first tube such that a gap is formed between said first tube and said second tube, said gap capable of holding from about 0.1 ml to about 6 ml of water when said cartridge is not sealingly engaged to the water treatment device, and such that said distal end of said second tube extends a greater distance than said distal end of said first tube from said housing, and such that at least one of said sealing surfaces of said second tube extends a greater distance than at least one of said sealing surfaces of said first tube from said housing.

24. The cartridge of claim 23, wherein said distal end of said second tube extends from said cartridge housing from about 1 time to about 2.5 times the distance of said distal end of said first tube.

25. The cartridge of claim 23, wherein said sealing surface of said second tube extends from said cartridge housing from about 1 time to about 3 times the distance of said sealing surface of said first tube.
26. The cartridge of claim 23, wherein said first and second tubes are without o-rings.
27. The cartridge of claim 23, wherein the diameter of said inside surface of said first tube is from about 0.5 cm to about 3 cm.
28. The cartridge of claim 27, wherein the diameter of said inside surface of said second tube is from about 1 cm to about 5 cm, such that the diameter of said gap formed between said outside surface of said first tube and said inside surface of said second tube is from about 0.1 cm to about 2.5 cm.
29. The cartridge of claim 23, wherein a portion of said outside surface of said second tube is a cam surface.
30. The cartridge of claim 23, where said activated carbon is a radial flow block.
31. A cartridge for treating water, said cartridge capable of releasably engaging with a water treatment device, said cartridge comprising:
  - (a) a housing, an inlet for introducing untreated water into said cartridge, an outlet port for egress of treated water from said cartridge, and a treatment media for treating untreated water, said treatment media being in fluid communication with said inlet and said outlet port;

(b) a first tube comprising an inside surface, an outside surface, a proximal end, and a distal end, wherein a portion of said inside surface is a sealing surface; and

(c) a second tube comprising an inside surface, an outside surface, a proximal end, and a distal end, wherein a portion of said inside surface is a sealing surface;

wherein said first tube extends outwardly from said housing and surrounds said outlet port, and said second tube extends outwardly from said housing and surrounds said first tube such that a gap is formed between said first tube and said second tube, said gap capable of holding from about 0.1 ml to about 6 ml of water when said cartridge is not sealingly engaged to the water treatment device, and such that said distal end of said first tube extends a greater distance than said distal end of said second tube from said housing, and such that at least one of said sealing surfaces of said first tube extends a greater distance than at least one of said sealing surfaces of said second tube from said housing.

32. The cartridge of claim 31, wherein said distal end of said first tube extends from said cartridge housing from about 1 time to about 2.5 times the distance of said distal end of said second tube.
33. The cartridge of claim 31, wherein said sealing surface of said first tube extends from said cartridge housing from about 1 time to about 3 times the distance of said sealing surface of said second tube.
34. The cartridge of claim 31, wherein said first and second tubes are without o-rings.
35. The cartridge of claim 31, wherein the diameter of said inside surface of said first tube is from about 0.5 cm to about 3 cm.

36. The cartridge of claim 35, wherein the diameter of said inside surface of said second tube is from about 1 cm to about 5 cm, such that the diameter of said gap formed between said outside surface of said first tube and said inside surface of said second tube is from about 0.1 cm to about 2.5 cm.
37. The cartridge of claim 31, wherein a portion of said outside surface of said second tube is a cam surface.
38. The cartridge of claim 31, where said activated carbon is a radial flow block.
39. A water treatment system, said system comprising:
  - (a) a cartridge for treating water, said cartridge capable of releasably engaging with a water treatment device, said cartridge comprising:
    - (i) a housing, an inlet for introducing untreated water into said cartridge, an outlet port for egress of treated water from said cartridge, and a treatment media for treating untreated water, said treatment media being in fluid communication with said inlet and said outlet port;
    - (ii) a first tube comprising an inside surface, an outside surface, a proximal end, and a distal end, wherein at least one of said inside surface and outside surface is a sealing surface; and
    - (iii) a second tube comprising an inside surface, an outside surface, a proximal end, and a distal end, wherein at least one of said inside surface and said outside surface is a sealing surface;



wherein said first tube extends from said housing and surrounds said outlet port, and wherein at least a portion of said first tube or said second tube surrounds the other such that a gap is formed between said first tube and said second tube, said gap capable of holding a volume of water;

(b) a device for releasably engaging a water treatment cartridge, said device comprising:

(i) an outlet housing having an inside surface and an outside surface, said outlet housing comprising at least one sealing surface; and

(ii) a vent housing having an inside surface and an outside surface, said vent housing comprising at least one sealing surface;

wherein at least a portion of said inside surface of said outlet housing forms and defines a treated water outlet passageway, and wherein at least a portion of said outside surface of said outlet housing and said inside surface of said vent housing forms and defines an air vent;

wherein said first tube sealingly engages said outlet housing, and wherein said second tube sealingly engages said vent housing such that said inside surface of said first tube and said inside surface of said outlet housing are in fluid communication, and such that said outside surface of said first tube and said inside surface of said second tube are in fluid communication.

40. The system of claim 39, wherein said sealing surface of said outlet housing is at least one o-ring oriented around said outside surface of said outlet housing, and said sealing surface of said vent housing is at least one o-ring oriented around said outside surface of said vent housing.

41. The system of claim 39, wherein at least one sealing engagement of said second tube and said vent housing occurs distal to at least one sealing engagement of said first tube and said outlet housing, relative to said cartridge housing.